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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/581,603 | 02/27/2007 | Katsuyuki Wada | 1035-641 | 5465 |

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| EXAMINER | |
|---|---|
| ANDERSON, CATHARINE L | |
| ART UNIT | PAPER NUMBER |
| 3761 | |

| MAIL DATE | DELIVERY MODE |
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| 01/29/2010 | PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/581,603 | WADA ET AL. | |
| | Examiner | Art Unit | |
| | LYNNE ANDERSON | 3761 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *05 November 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) *10-14* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments filed 5 November 2009 have been fully considered but they are not persuasive.

2. In response to the applicant's argument that Sun does not disclose the heat retention indicator 1 of the water-absorbing resin, it is noted that the applicant's arguments fail to explain why the heat retention indicator 1 is not inherent to the resin. The applicant's arguments to not explain what factors result in the heat retention indicator 1 and why the resin disclosed by Sun would not exhibit the claimed heat retention indicator.

3. The heat retention indicator 1, as described on pages 46-47 of the present specification, depends on the rate at which the resin cools, which is a result of the chemical structure of the resin. Since the heat retention indicator 1 is dependent on the chemical structure of the resin, it is an inherent property of the resin. Sun discloses the claimed water-absorbing resin, and therefore the heat retention indicator 1 is inherent to the resin.

### *Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sun et al. (6,514,615) in view of Beihoffer et al. (6,222,091).

6. With respect to claims 1 and 4-5, Sun discloses all aspects of the claimed invention with the exception of the saline flow conductivity and the heat retention indicator. Sun discloses a water-absorbing agent comprising a crosslinked resin polymer that is surface treated, as disclosed in column 4, lines 37-52. The water-absorbing agent has a centrifuge retention capacity of less than 34 g/g, as disclosed in column 7, lines 50-54, and an absorbency of less than 30 g/g, as disclosed in column 7, lines 55-62.

7. Sun remains silent as to the heat retention indicator of the water-absorbing agent, but the temperature change on the surface of the water-absorbing resin is inherent to the water-absorbing resin. Since Sun discloses the identical water-absorbing agent as the claimed invention, the water-absorbing agent of Sun will inherently exhibit the claimed heat retention indicators.

8. Additionally, Beihoffer teaches water-absorbing agents comprising resin polymers, the water-absorbing agents having a saline flow conductivity of $15x10^{-7}$ $cm^3sec/g$, as disclosed in column 47, lines 27-28. This saline flow conductivity prevents the water-absorbing agent from forming a hydrogel during use, and provides for improved fluid handling, as disclosed in column 36, lines 24-51.

9. It would therefore be obvious to one of ordinary skill in the art at the time of invention to provide the water-absorbing agent of Sun with a saline flow conductivity of $15x10^{-7}$ $cm^3sec/g$, as taught by Beihoffer, to provide for improved fluid handling.

10. With respect to claims 2 and 6, Sun discloses the water-absorbing agent is particles having diameters from 300-600 micrometers, with 0% being less than 150 micrometers, as disclosed in column 5, lines 41-44.

11. With respect to claim 3, the water-absorbing agent is further provided with inorganic fine particles, as disclosed in column 8, lines 25-27.

12. With respect to claim 7, the water-absorbing agent further comprises a polyol, as disclosed in column 5, lines 18-24.

13. With respect to claims 8 and 9, the water-absorbing agent is mixed with hydrophilic fibers to form the absorbent core of an absorbent article, as disclosed in column 4, lines 1-11. Absorbent articles such as diapers and sanitary napkins are well-known to comprise a liquid-permeable topsheet and a liquid-impermeable backsheet.

***Conclusion***

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LYNNE ANDERSON whose telephone number is (571)272-4932. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tanya Zalukaeva can be reached on (571) 272-1115. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/L. A./
Examiner, Art Unit 3761

/Tatyana Zalukaeva/
Supervisory Patent Examiner, Art Unit 3761